

## Ensuring Seamless Information Delivery to BC's Electronic Medical Records: Achieving Interoperability

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### BCMA Position

*The BCMA supports a fully integrated health information system with appropriate privacy protection. This system must include the ability for physician electronic medical records (EMRs) to receive information seamlessly from the Ministry of Health and health authorities. This is called interoperability, and the provincial government must make it a priority in order to provide safe, effective support for health professionals providing care. Successful implementation of health information systems in British Columbia requires the following:*

- *The provincial government must move toward systems that fully interact with one another. Cheaper “viewer only” systems that only permit one to look at data are not practical and do not support care quality and safety.*
- *The provincial government must establish interoperability standards and a provincial identity management strategy that ensures safe, effective, and rapid transmission of data at the point of care.*
- *A reliable and effective system for the electronic ordering and delivery of information must be put in place so that physicians can fully utilise their EMRs to order diagnostic tests, receive test results, electronically prescribe, and send and receive referrals and other types of reports.*
- *The provincial government must dedicate adequate resources to ensure that physicians do not bear the full costs of achieving interoperability.*
- *The provincial government must work with physicians to align funding and other incentives (such as support programs) to increase uptake of interoperability functions within the physician community in order to achieve benefits of widespread implementation of EMRs.*

### Background

Imagine for a moment if your bank card only allowed you to view your account information at a bank machine, but did not allow you to make debit purchases in stores, take out cash or manage your account online. Its usefulness would be very limited. The reality is that your card does many different jobs very well.

That is interoperability – the ability of two or more information systems or components to exchange information and use it reliably and rapidly without error. This is a hallmark of any fully-integrated health information system.

The value of interoperability in an electronic medical record (EMR) is enormous. By linking laboratory, imaging, and prescription drug information systems with the data in a patient's medical record, interoperability

standards help improve patient safety and the quality of care, ensure physicians meet their medico-legal obligations in the management of records, and reduce health system costs by avoiding duplication of services and the relatively costly management of paper records (See Exhibit 1).

A major challenge facing British Columbia as it continues to implement the provincial eHealth strategy is to achieve interoperability among its diverse health information systems. Because these systems include, among others, laboratory imaging and prescription drug information systems – all of which were designed at different times, for different needs, and with different technical specifications – achieving interoperability is no easy feat. However, steps can be taken to facilitate this process and to ensure that, over the long-run, a fully-interoperable EMR becomes a reality in British Columbia in a timely fashion.

Although the provincial eHealth Strategy seems to recognize that there is a role for both the less costly “viewer” type access systems and fully integrated EMRs systems, it is important that the less costly system does not take precedence over the creation of a truly interoperable system. These “viewer” systems only allow physicians to view or print this information – physicians cannot download or modify information in the records. For example, under a “viewer” system, a physician would be able to see a patient’s laboratory results, but would have to manually enter the data into their EMR. This means the data entry step occurs twice, which is unnecessary and can lead to errors. In an interoperable system, this transfer of data would happen automatically.

### **Exhibit 1: Value in achieving Interoperability**

#### **1. Enhanced Care Quality**

- Information available when needed allows to provide better care during a single visit
- Advanced EMR features can be used (such as clinical decision support and population health analysis)
- Improved Chronic Disease Management

#### **2. Improved Patient safety**

- Right information into right chart
- Fewer transcription errors

#### **3. Respect of medico-legal obligations**

#### **4. Containment of costs**

- Reduced repeated testing (lab and imaging)
- Reduced unnecessary visits
- Decreased paper record handling

The BCMA recognizes there are challenges to achieve interoperability. They include *technical barriers* (e.g., agreement on the desired level of interoperability; and the standards that should be used); *financial barriers* (e.g., viewer access is easier and cheaper to implement than full interoperability; and existing vendors lack sufficient incentive to make it happen); and *policy, legal, and privacy requirements* (e.g., unresolved privacy parameters, such as patient consent and information sharing agreements). By making interoperability a priority and working with the medical profession, these barriers can be overcome and interoperability can become a reality in British Columbia.

As a first step, the provincial government must continue to implement a provincial identity management strategy (patient and provider) integrated with health information systems at the point of care (i.e., in the physician’s office at the time of interaction with the patient). In parallel, there must be provincial agreement on interoperability standards. Then it will be possible to achieve widespread implementation of mechanisms to deliver useable results to EMRs and allow e-ordering and ePrescribing.

Adequate resources must support these initiatives in order to ensure widespread adoption. The BCMA will continue to work with the province to ensure that EMRs are fully functional systems that meet the needs of health professionals and patients.

## **Analysis**

The BCMA and the Ministry of Health are working on implementing EMRs in over 4,200 BC physician offices by 2014 through the Physician IT Office (PITO) program. As more physicians transition to EMRs, there is a greater need for full interoperability to improve care quality and access. While there may be a transition period, the focus must be on making the new health IM/IT systems interoperable with EMRs.